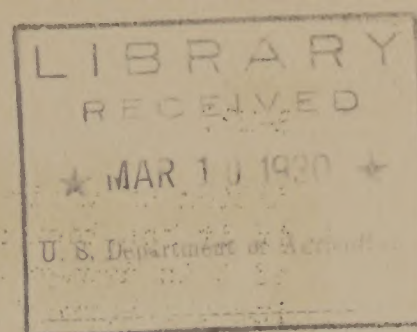


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# QUALITY AND CONDITION OF COTTON PLANTING SEED

A radio talk by Mr. C. B. Doyle, Bureau of Plant Industry, delivered through Station WRC and 32 other stations associated with the National Broadcasting Company, February 25, 1930.

At this time of the year cotton growers should be giving serious thought to the quality and condition of the seed that is to be used for planting purposes the coming season.

Quality in cotton planting seed is just as important and necessary to growers as pedigree is to the livestock breeder. The cotton grower cannot hope to improve production and increase his farm income unless he plants pure selected seed adapted to his conditions and takes the same care to prevent mixing and mongrelizing as he would take with pure breeds of livestock. Pedigreed livestock can be kept within a fenced enclosure with reasonable assurance of protection from mongrelizing with other and inferior breeds, but more than a fenced enclosure is needed for cotton. Bees and other flying insects that visit the flowers in search of honey carry the pollen from one flower to another in the same field and to flowers in neighboring fields. Should the neighboring fields be planted to different varieties, the several kinds would be cross-bred and mongrelized. This adds to the general mixing of seed of different varieties at the public gins, and it is easy to understand how the continued planting of such seed is resulting in the production of increasing quantities of inferior "sorry" cotton that enters the world's markets in competition with the more cheaply produced cotton of India and China.

But though individual cotton growers cannot preserve the purity of their seed by fencing the fields, there is another way to maintain quality in cotton seed that is almost as simple as separate fencing. All of the farmers who patronize the same gin should organize themselves into a local association of growers and agree to plant only one kind of cotton. This is the only way to build an effective fence around a cotton-growing community for keeping the seed pure. In such a one-variety community there would be no crossing of the varieties in the fields because all of the cotton in the neighborhood would be of the same kind, and for the same reason no mixing of seed of different varieties could take place at the gin.

Under the one-variety plan of production all of the farmers in the gin community could plant the same high quality of seed each year, higher average yields of uniform fiber would be assured and large and regular supplies of uniform fiber could be made continuously available. A "good" market reputation could be established and better prices obtained for regular commercial quantities of uniform quality fiber.

As the planting season approaches, another very important question to which cotton growers should give serious attention is the physical con-



dition of their planting seed. No matter how pure the seed stock may be, if it has been damaged either before or during winter storage the extent of this damage should be known and guarded against at planting time. During the harvest season last fall rains in the eastern section of the belt and drought in the western States undoubtedly resulted in much damage to cotton planting seed. Cotton growers are warned, therefore, to be sure of the condition of their seed to avoid the heavy losses from broken stands that may result from the planting of seed of low vitality.

Full stands from the first planting are necessary to obtain the highest yields of cotton fiber, and it should be the aim of the cotton grower to obtain this result if possible. In addition to the greater expense of replanting the skips in the rows, the later plants often are stunted by being robbed of moisture and plant food by the larger stalks in adjoining rows. Also, with a difference of two or three weeks in age of the two plantings, the flowering period of the later planting is delayed and boll weevils bred in the earlier flower buds may seriously cut down the crop on the later plants.

At the first opportunity, cotton growers should test their seed at home by the familiar "rag doll" method of placing two lots of 100 seeds each between the folds of a moistened towel or piece of muslin. If kept at a temperature of 80 degrees in the daytime and about 60 degrees at night, in from five to eight days the sprouted seed can be counted, the condition of the seed determined, and the farmer can then decide for himself whether his seed is satisfactory, how thickly it must be planted, and how large a stock should be reserved for replanting. Planting seed should show a germination of at least 75% and at least one bushel should be planted to the acre to insure a good stand.

Planting too early is the danger that needs to be borne in mind. Early planting is always preferable to late planting because the growth that plants make during moderate weather during the spring months is more apt to be normal. Furthermore, early plants begin to fruit near the ground instead of producing large stalks which make the crop late. But it is possible to plant too early and so have the seed rot in the ground, or if the seed germinates the young plants may be killed by frost or stunted by too much cold weather.